

SAFETY & ENVIRONMENTAL ADVISORY 2013-01

February 22, 2013



Necessary Procedures to Ensure Well Control

In March 2012, a loss of well control occurred during drilling operations on a natural gas well targeting the Montney formation in the Altares field. While drilling in the Doig formation at a depth of 2,124 metres, a pit gain alarm occurred, alerting the drilling crew to a 0.5 cubic metre increase in drilling fluid volume. The crew immediately called an alarm and proceeded to shut the well in by closing the blowout preventers.

Following shut in, the well casing pressure continued to climb, approaching and then exceeding the maximum allowable casing pressure (MACP). The crew opened the well to flow in an attempt to reduce the casing pressure. As the crew continued its attempts to reduce casing pressure, the well continued to flow and the casing pressure continued to rise as drilling fluid was evacuated from the well.

A drilling fluid return line failed, resulting in a loss of well control. Immediately following the failure, all personnel evacuated the site. The drilling rig caught fire and was subsequently destroyed. The BC Oil and Gas Commission (Commission) determined the root cause was inadequate well control procedures. There was no threat to public safety and any environmental impacts have been completely remediated. Detailed information regarding the incident cause and contributing factors can be found on the Commission's website.

Requirement

Division 2 of the <u>Drilling and Production Regulation</u> contains regulatory requirements related to well control equipment, procedures, training and competency.

Permit holders must ensure well control procedures are clear and appropriate for the well being drilled. Specifically, permit holders must ensure well control procedures contain clear direction regarding the management of pressures that may occur during well control operations. Permit holders must ensure all wellsite personnel are adequately trained and competent.

If you have any questions regarding this Safety and Environmental Advisory, please contact:

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